## SEQUENZPROTOKOLL

<110> Forschungszentrum Juelich GmbH <120> Valinherstellung <130> P14PCT <140> PCT/EP 00/01405 <141> 2000-02-21 <150> 199 07 567.0 <151> 1999-02-22 <160> 5 <170> PatentIn Ver. 2.1 <210> 1 <211> 2952 <212> DNA <213> Corynebacterium glutamicum <400> 1 agtacttgga gcgccaaaag gcactgggca agccagttca gttgaacttc gatgacgaca 60 ccgatgggaa tacaacacaa acagaaagcg ttgaatccca agagaccgga caagccgcgt 120 ctgaaacctc acatcgtgat aaccctgcgt cacagcacta gagtgtaata agccgtccga 180 accaaaggtc cacacctctg cacgagtaga agctcaccca agttttcaaa gtgccgttga 240 ttcttgacaa ccacccgccg ctctttagag cagatttgaa aagcgcatca tgatcccact 300 tegtteaaaa gteaceaceg teggtegeaa tgeagetgge getegegeee tttggegtge 360 caccggcacc aaggaaaatg agttcggcaa gccaattgtt gccatcgtaa actcctacac 420 ccagttcgtg cccggacacg ttcaccttaa gaacgtcggc gatattgtgg cagatgcagt 480 gcgcaaagcc ggtggcgttc caaaggaatt caacaccatc gtcgatgacg gcatcgccat 540 gggacacggc ggcatgctgt actccctgcc atcccgtgaa atcatcgccg actccgtcga 600 atacatggtc aacgcacaca ccgccgacgc catggtgtgt atctccaact gtgacaagat 660 caccccagge atgeteaacg cagcaatgeg cetgaacate ceagtggtet tegttteegg 720 tggcccaatg gaagctggca aggctgtcgt cgttgagcgc gttgcacacg caccaaccqa 780 cctcatcacc gcgatctccg catccgcaag cgatgcagtc gacgacgcag gccttgcagc 840 cgttgaacga tccgcatgcc caacctgtgg ctcctgctcc ggtatgttca ccgcgaactc 900 catgaactgc ctcaccgaag ctctgggact ttctctcccg ggcaacggct ccactctggc 960 aacccacgca gcacgtcgcg cactgtttga aaaggccggc gaaaccgtcg ttgaactgtg 1020 ccgccgctac tacggtgaag aagacgaatc cgttctgcca cgtggcattg ccaccaagaa 1080 ggcattcgaa aacgcaatgg cactggatat ggccatgggt ggatccacca acaccatcct 1140 ccacatecte geagetgeec aggaaggega agttgactte gacetegeag acategaega 1200 actgtccaaa aacgtcccct gcctgtccaa ggttgcacca aactccgact accacatgga 1260

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Gly His Val His Leu Lys Asn Val Gly Asp Ile Val Ala Asp Ala Val 50 55 60

Arg Lys Ala Gly Gly Val Pro Lys Glu Phe Asn Thr Ile Val Asp Asp 65 70 75 80

<sup>&</sup>lt;211> 612

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Corynebacterium glutamicum

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- Asp Ala Met Val Cys Ile Ser Asn Cys Asp Lys Ile Thr Pro Gly Met 115 120 125
- Leu Asn Ala Ala Met Arg Leu Asn Ile Pro Val Val Phe Val Ser Gly 130 135 140
- Ala Pro Thr Asp Leu Ile Thr Ala Ile Ser Ala Ser Ala Ser Asp Ala 165 170 175
- Val Asp Asp Ala Gly Leu Ala Ala Val Glu Arg Ser Ala Cys Pro Thr 180 185 190
- Cys Gly Ser Cys Ser Gly Met Phe Thr Ala Asn Ser Met Asn Cys Leu 195 200 205
- Thr Glu Ala Leu Gly Leu Ser Leu Pro Gly Asn Gly Ser Thr Leu Ala 210 215 220
- Thr His Ala Ala Arg Arg Ala Leu Phe Glu Lys Ala Gly Glu Thr Val 225 230 235 240
- Val Glu Leu Cys Arg Arg Tyr Tyr Gly Glu Glu Asp Glu Ser Val Leu 245 250 255
- Pro Arg Gly Ile Ala Thr Lys Lys Ala Phe Glu Asn Ala Met Ala Leu 260 265 270
- Asp Met Ala Met Gly Gly Ser Thr Asn Thr Ile Leu His Ile Leu Ala 275 280 285
- Ala Ala Gln Glu Gly Glu Val Asp Phe Asp Leu Ala Asp Ile Asp Glu
  290 295 300
- Leu Ser Lys Asn Val Pro Cys Leu Ser Lys Val Ala Pro Asn Ser Asp 305 310 315 320
- Tyr His Met Glu Asp Val His Arg Ala Gly Arg Ile Pro Ala Leu Leu 325 330 335

- Gly Glu Leu Asn Arg Gly Gly Leu Leu Asn Lys Asp Val His Ser Val 340 345 350
- His Ser Asn Asp Leu Glu Gly Trp Leu Asp Asp Trp Asp Ile Arg Ser 355 360 365
- Gly Lys Thr Thr Glu Val Ala Thr Glu Leu Phe His Ala Ala Pro Gly 370 375 380
- Gly Ile Arg Thr Thr Glu Ala Phe Ser Thr Glu Asn Arg Trp Asp Glu 385 390 395 400
- Leu Asp Thr Asp Ala Ala Lys Gly Cys Ile Arg Asp Val Glu His Ala 405 410 415
- Tyr Thr Ala Asp Gly Gly Leu Val Val Leu Arg Gly Asn Ile Ser Pro 420 425 430
- Asp Gly Ala Val Ile Lys Ser Ala Gly Ile Glu Glu Leu Trp Asn 435 440 445
- Phe Thr Gly Pro Ala Arg Val Val Glu Ser Gln Glu Glu Ala Val Ser 450 455 460
- Val Ile Leu Thr Lys Thr Ile Gln Ala Gly Glu Val Leu Val Val Arg
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- Tyr Glu Gly Pro Ser Gly Gly Pro Gly Met Gln Glu Met Leu His Pro
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- Thr Ala Phe Leu Lys Gly Ser Gly Leu Gly Lys Lys Cys Ala Leu Ile 500 505 510
- Thr Asp Gly Arg Phe Ser Gly Gly Ser Ser Gly Leu Ser Ile Gly His 515 520 525
- Val Ser Pro Glu Ala Ala His Gly Gly Val Ile Gly Leu Ile Glu Asn 530 540
- Gly Asp Ile Val Ser Ile Asp Val His Asn Arg Lys Leu Glu Val Gln 545 550 555 560
- Val Ser Asp Glu Glu Leu Gln Arg Arg Arg Asp Ala Met Asn Ala Ser 565 570 575
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Leu Val Gly Asp Ser Ala Ala Asn Val Val Leu Gly Arg Asp Thr Thr 50 55 60

Leu Ser Ile Thr Leu Asp Glu Met Ile Val Leu Ala Lys Ala Val Thr
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Ile Ala Thr Lys Arg Ala Leu Val Val Val Asp Leu Pro Phe Gly Thr
85 90 95

Tyr Glu Val Ser Pro Asn Gln Ala Val Glu Ser Ala Ile Arg Val Met
100 105 110

Arg Glu Thr Gly Ala Ala Ala Val Lys Ile Glu Gly Gly Val Glu Ile 115 120 125

Ala Gln Thr Ile Arg Arg Ile Val Asp Ala Gly Ile Pro Val Val Gly 130 135 140

Val Gln Gly Arg Gly Ala Ser Ser Gly Lys Leu Ile Ala Asp Ala Arg 165 170 175

Ala Leu Glu Gln Ala Gly Ala Phe Ala Val Val Leu Glu Met Val Pro 180 185 190 Ala Glu Ala Ala Arg Glu Val Thr Glu Asp Leu Ser Ile Thr Thr Ile 195 200 205

Gly Ile Gly Ala Gly Asn Gly Thr Asp Gly Gln Val Leu Val Trp Gln 210 215 220

Asp Ala Phe Gly Leu Asn Arg Gly Lys Lys Pro Arg Phe Val Arg Glu 225 230 235 240

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His Ala Ser Leu Val Lys Ala Ala Arg Ala Glu Asn Asp Thr Val Val
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Ala Ser Ile Phe Val Asn Pro Leu Gln Phe Glu Ala Leu Gly Asp Cys
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Asp Asp Tyr Arg Asn Tyr Pro Arg Gln Leu Asp Ala Asp Leu Ala Leu 65 70 75 80

Leu Glu Glu Ala Gly Val Asp Ile Val Phe Ala Pro Asp Val Glu Glu
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Met Tyr Pro Gly Gly Leu Pro Leu Val Trp Ala Arg Thr Gly Ser Ile 100 105 110

Gly Thr Lys Leu Glu Gly Ala Ser Arg Pro Gly His Phe Asp Gly Val

Ala Thr Val Val Ala Lys Leu Phe Asn Leu Val Arg Pro Asp Arg Ala

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- Arg Gly Ala Asp Gly Leu Ala Glu Ser Ser Arg Asn Gln Arg Leu Ser 180 185 190
- Ala Asp Gln Arg Ala Gln Ala Leu Val Leu Pro Gln Val Leu Ser Gly
  . 195 200 205
- Leu Gln Arg Arg Lys Ala Ala Gly Glu Ala Leu Asp Ile Gln Gly Ala 210 215 220
- Arg Asp Thr Leu Ala Ser Ala Asp Gly Val Arg Leu Asp His Leu Glu 225 230 235 240
- Ile Val Asp Pro Ala Thr Leu Glu Pro Leu Glu Ile Asp Gly Leu Leu 245 250 255
- Thr Gln Pro Ala Leu Val Val Gly Ala Ile Phe Val Gly Pro Val Arg 260 265 270

Leu Ile Asp Asn Ile Glu Leu 275